## **Amendments to the Claims**

1. (Currently amended) A method of forming a metal complex of formula  $M(Ar^1Ar^2)_nL$  comprising the step of reacting a compound of formula (I) with a bidentate ligand L:

$$\begin{pmatrix} Ar^{1} \\ Ar^{2} \end{pmatrix} M \begin{pmatrix} Hal \\ Hal \\ I \end{pmatrix} M \begin{pmatrix} Ar^{1} \\ Ar^{2} \end{pmatrix}_{n}$$

wherein Ar<sup>1</sup> and Ar<sup>2</sup> are each independently an optionally substituted aryl or heteroaryl; Ar<sup>1</sup>-Ar<sup>2</sup> forms at least one carbon-M bond by reaction of M with a carbanion of Ar<sup>1</sup>-Ar<sup>2</sup>; L is a compound of formula Ar<sup>1</sup>-Ar<sup>2</sup> which forms at least one carbon-M bond by reaction of M with a carbanion thereof; M is iridium, rhodium, platinum or palladium; Hal is a halogen; and n is a number from 1-3 having a value necessary to satisfy the valency of metal M,

in the presence of an enabling ligand that is capable of breaking the halogen bridge of the compound of formula (I).

- 2. (Previously presented) A method according to claim 1 wherein Hal is bromine, chlorine or iodine.
- 3. (Previously presented) A method according to claim 1 wherein  $Ar^{1}$   $Ar^{2}$  is phenylpyridine.
- 4. (Previously presented) A method according to claim 1 wherein  $Ar^1$ - $Ar^2$  and L are the same.
- 5. (Withdrawn) A method according to claim 1 wherein  $Ar^1$ - $Ar^2$  and L are different.

- 6. (Previously presented) A method according to claim 1 wherein the enabling ligand is a monodentate ligand.
- 7. (Previously presented) A method according to claim 6 wherein the monodentate ligand is selected from the group consisting of optionally substituted pyridine and triarylphosphine.
- 8. (Previously presented) A method according to claim 1 wherein the enabling ligand is a bidentate ligand of formula (IIb):

wherein each R is independently selected from the group consisting of H and a substituent.

- 9. (Previously presented) A method according to claim 8 comprising forming the ligand of formula (IIb) by treating a corresponding protonated compound with a metal-free base.
- 10. (Previously presented) A method according to claim 8 wherein each R is hydrogen.
- 11. (Previously presented) A method of forming a metal complex of formula  $M(Ar^1Ar^2)_nL$  comprising a first step of preparing a compound of formula (I)

by reacting a compound of formula  $M(Hal)_m$  with a compound of  $Ar^1$ - $Ar^2$  and a second step according to claim 1, wherein m is a number necessary to satisfy the valency of M, comprising performing the first and second steps in a one-pot process.

- 12. (Previously presented) A method according to claim 1 comprising performing said reaction in a protic solvent.
- 13. (Previously presented) A method of forming a metal complex comprising:
- a) a first step of reacting a compound of formula  $M(Hal)_m$  with a compound of formula  $Ar^1$ - $Ar^2$  to form a compound of formula (I):

$$\begin{pmatrix} Ar^{1} \\ Ar^{2} \end{pmatrix} M \begin{pmatrix} Hal \\ Hal \end{pmatrix} M \begin{pmatrix} Ar^{1} \\ Ar^{2} \end{pmatrix}_{n}$$

and

b) a second step of reacting the compound of formula (I) with a reactive ligand that is capable of breaking the halogen bridge of the compound of formula (I),

wherein Ar<sup>1</sup> and Ar<sup>2</sup> are each independently an optionally substituted aryl or heteroaryl; Ar<sup>1</sup>-Ar<sup>2</sup> forms at least one carbon-M bond by reaction of M with a carbanion of Ar<sup>1</sup>-Ar<sup>2</sup>; M is iridium, rhodium, platinum or palladium; Hal is a halogen; m is a number from 2-8 and n is a number from 1-3, m and n each having a value necessary to satisfy the valency of metal M,

wherein the first and second steps are performed in a one-pot process.

14. (Previously presented) A method of forming a metal complex comprising the step of reacting a metal halide with a ligand of formula (II):

wherein each R is H or a substituent,

in the presence of a metal-free base of sufficient strength to deprotonate the compound of formula (II).

- 15. (Previously presented) A method according to claim 1 wherein Hal is chlorine.
- 16. (Previously presented) A method according to claim 9 wherein each R is hydrogen.
- 17. (Previously presented) A method according to claim 12 wherein the protic solvent is ethylene glycol.